



Northeast Cooperative Research Overview and Future Opportunities

Gloucester Summit on Innovation and Opportunity in a New Maritime Economy

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**NOAA
FISHERIES
SERVICE**



Priority Research Theme

- 1 - Support development and implementation of innovative monitoring tools and pilot programs to address critical data gaps as the industry moves to new management regimes – electronic logbooks and study fleets (fishery dependent).**
- 2 – Surveys and data Gaps – support industry based survey programs- pilot surveys to address critical data gaps – species specific biological samples (fishery independent & fishery dependent).**
- 3 - Conservation Engineering Network - Develop a comprehensive conservation engineering program within NEFSC/NCRP to achieve regional coordination and technology transfer with industry.**

www.Nefsc.noaa.gov/coopresearch



Established Gear Selectivity Networks

**GEARNET – CEMFIN – GMRI, MADMF, SMAST, UNH,
Superior Trawl**

**Bycatch Reduction, fuel efficiency, pinger exchange,
flume tank workshop, low impact gear**

REDNET – MADMF, MEDNR

**Redevelop a sustainable Acadian redfish fishery
Gear selectivity and socioeconomics**

SQUID TRAWL NETWORK – Cornell, SMAST, URI

**Bycatch Reduction, information exchange, acoustic
investigation of butterfish catchability (assessment)**



Avoidance Networks

FAST – Fishing Area Selectivity Tool – GMRI

Web-based tool to report and map interactions layered with oceanographic and environmental data

Initial focus on reducing harbor porpoise bycatch

CCCHFA – Duke

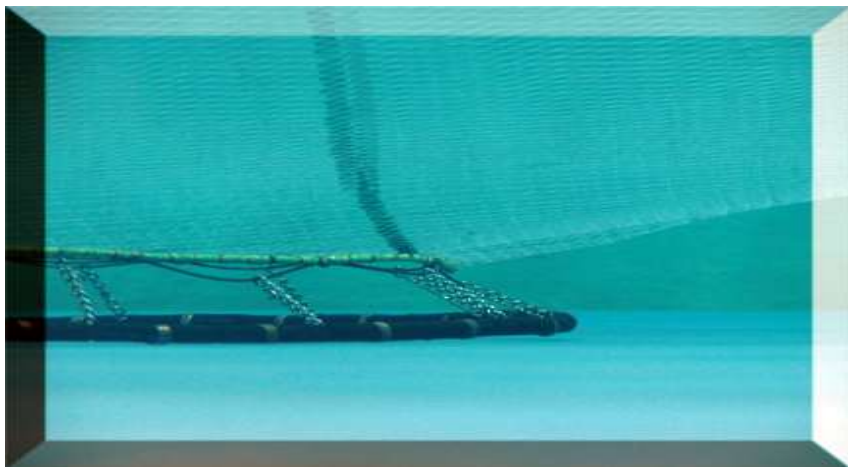
Evaluating temporal – spatial autocorrelation to inform move on rules.

GSSA - Rutgers

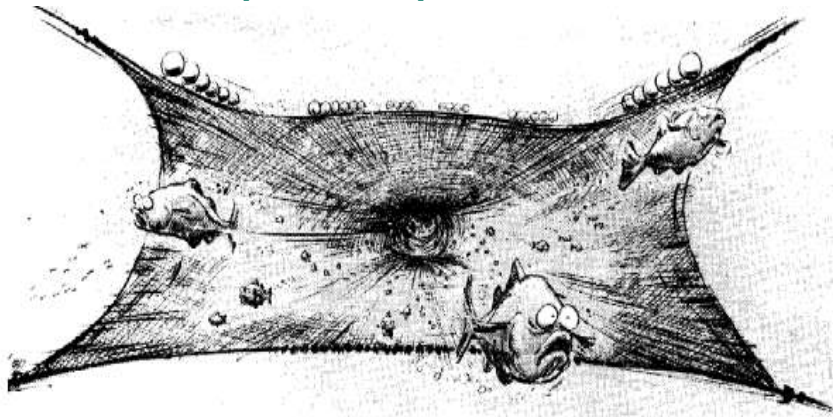
Real-time squid and butterfish habitat mapping w/ environmental data, diet studies and predator-prey.



Fishing Operations will change! Need to enhance performance tracking



Drop chain squid trawl



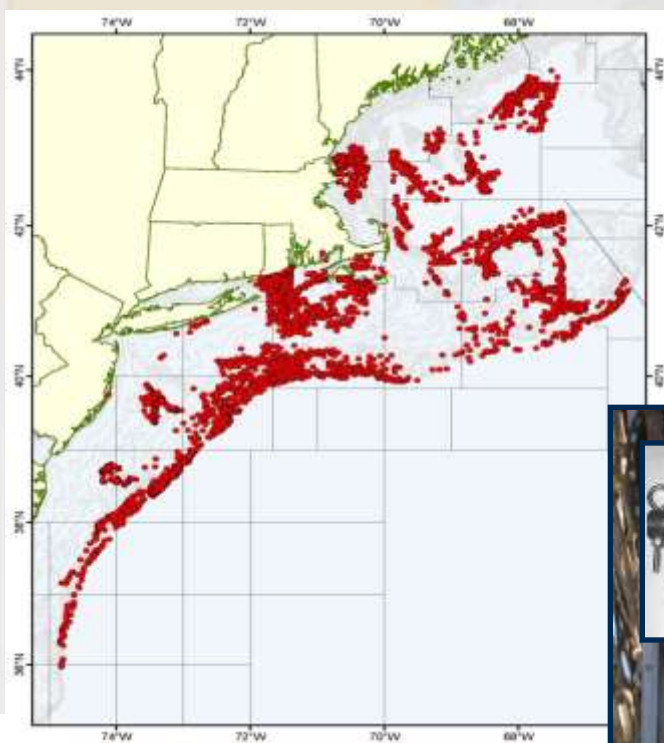
Standard shrimp trawl catch



Topless shrimp trawl catch



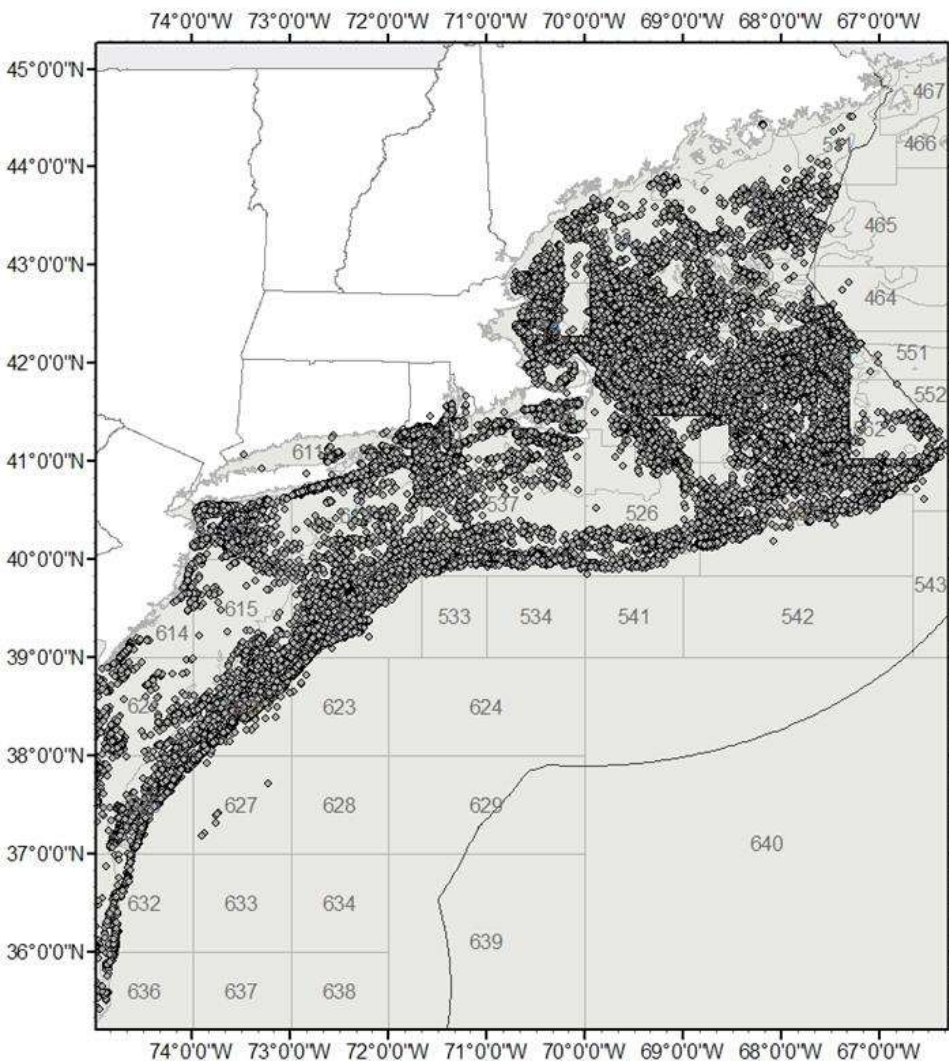
NE Study Fleet - Post-processing of GPS and temperature-depth data



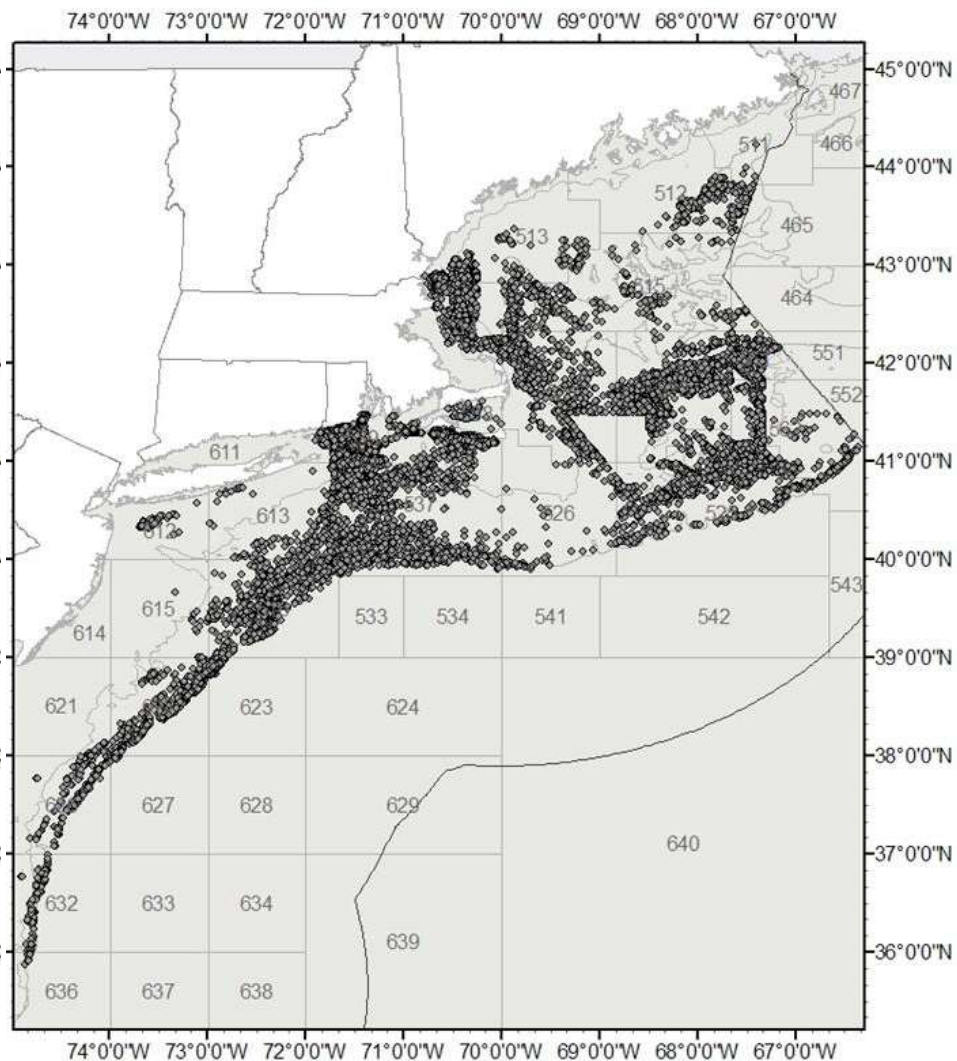
Year	Trips	Tows
2006	105	611
2007	404	2,316
2008	483	3,459
2009	1,101	5,960
2010	1,318	7,443
2011	1,568	10,099
2012	1,321	8,156



OBSERVER EFFORTS 2007-2011



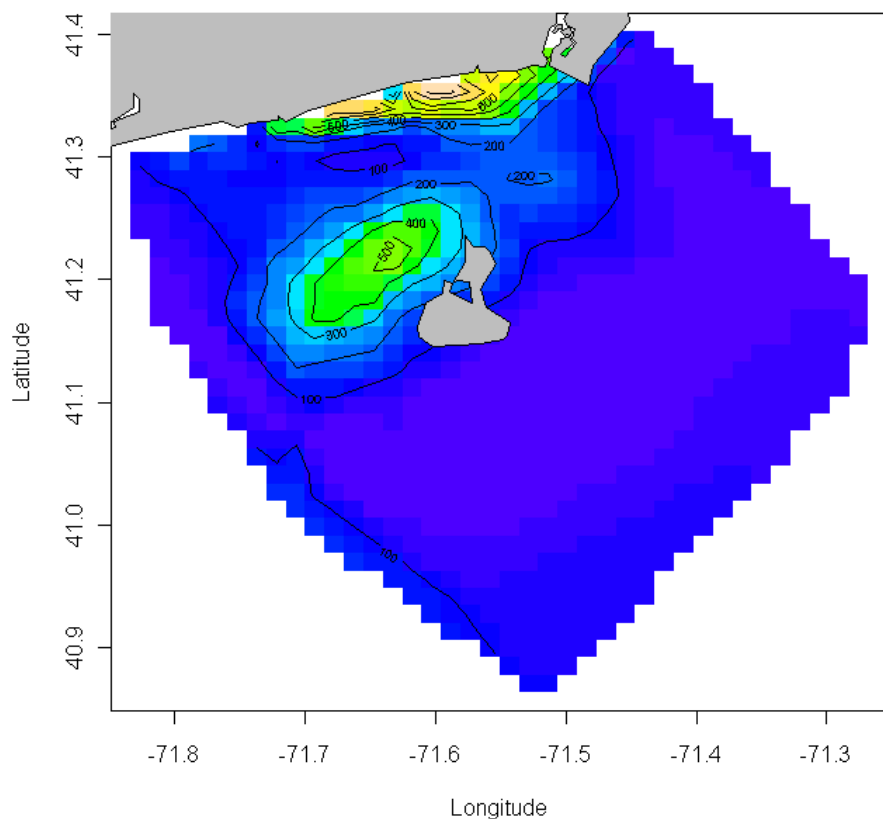
SF EFFORTS 2007-2011



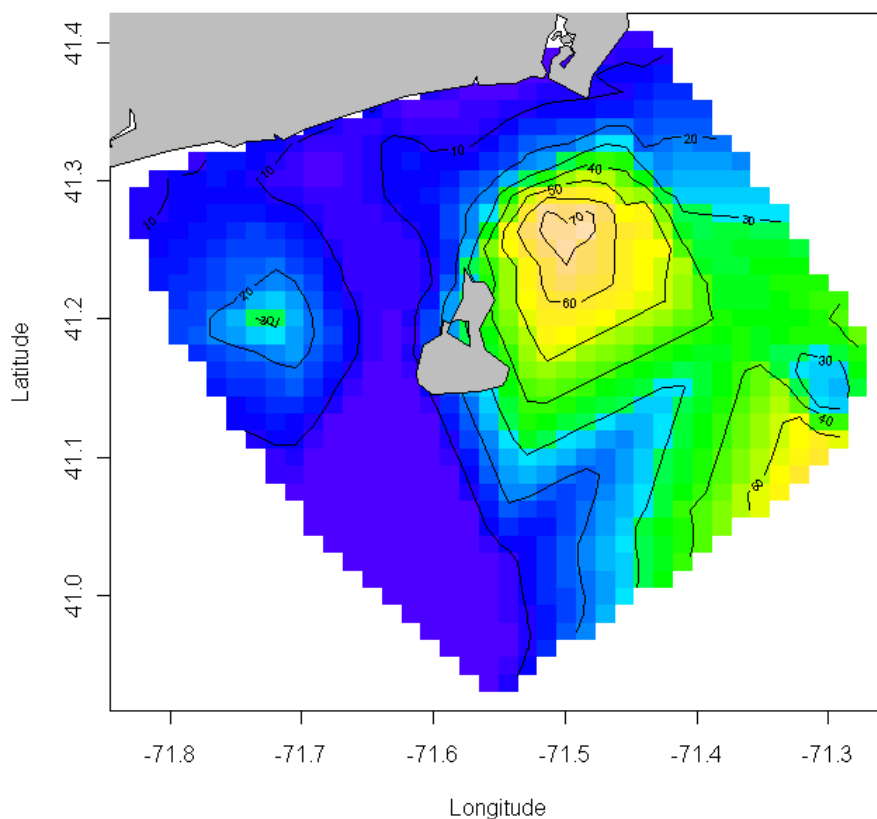


Analyzing Haul Specific Data to Support Avoidance of ACL Limited Stocks

Modeled Squid CPUE Inshore 2009

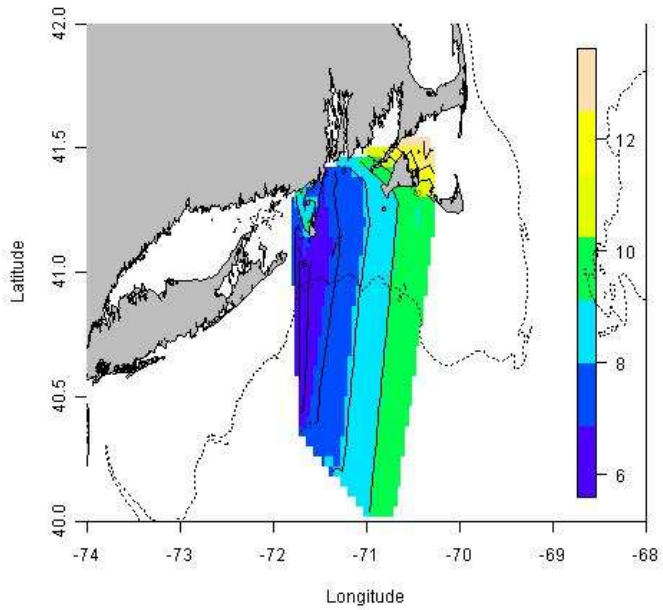


Modeled Winter Flounder CPUE Inshore 2009



2009

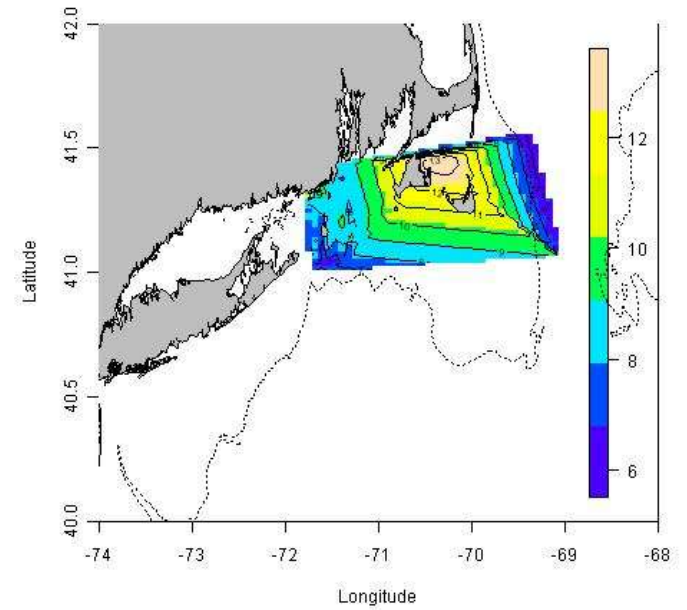
SF Bottom Temp _ year 9 _ month 5



MAY

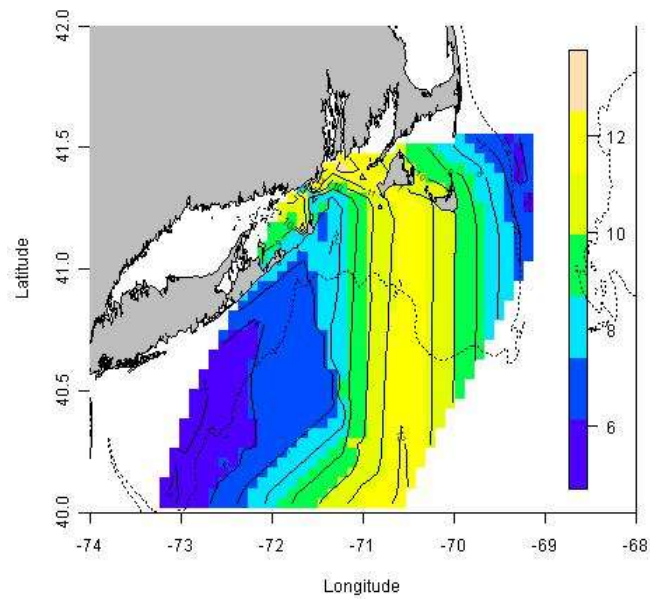
2010

SF Bottom Temp _ year 10 _ month 5



2011

SF Bottom Temp _ year 11 _ month 5



MIDDLE
ATLANTIC
REGIONAL
ASSOCIATION
COASTAL
OCEAN
OBSERVING
SYSTEM

1000 km
Cape to Cape

CT

RI

MA

Cape
Cod

NY

PA

NJ

MD

DE

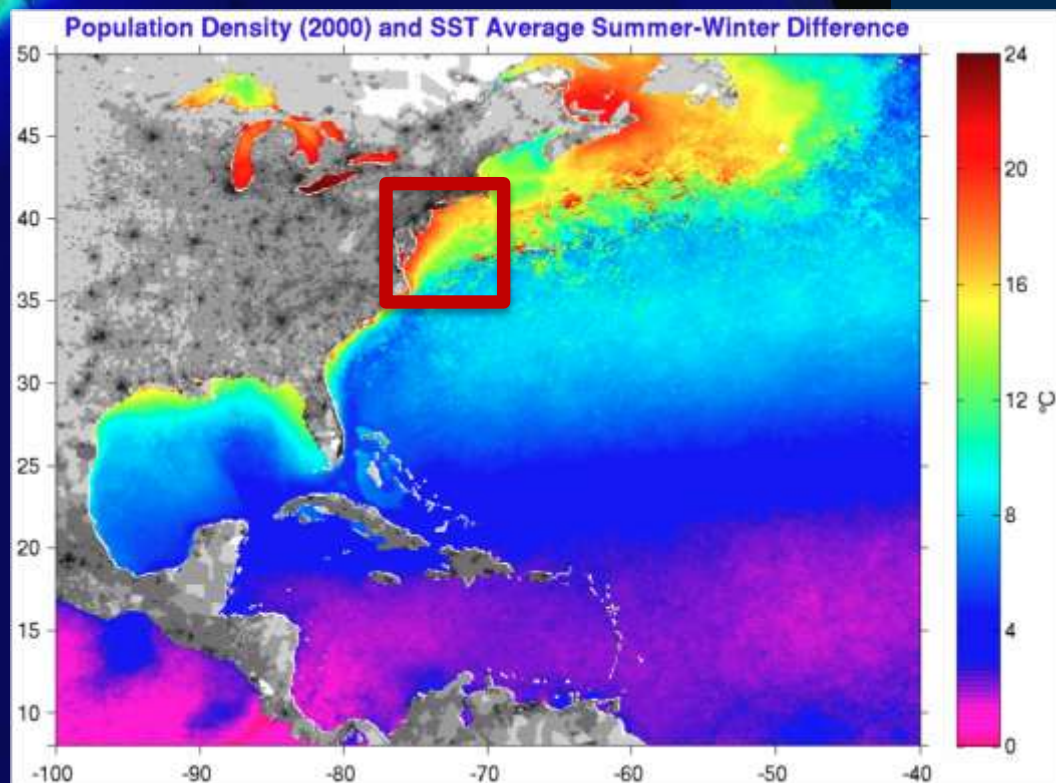
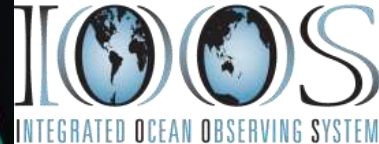
VA

NC

Cape
Hatteras

**Mid-Atlantic Regional Association
Coastal Ocean Observing System:
From Observations to Forecasts**

MANY MANY MANY PEOPLE



MARACOOS

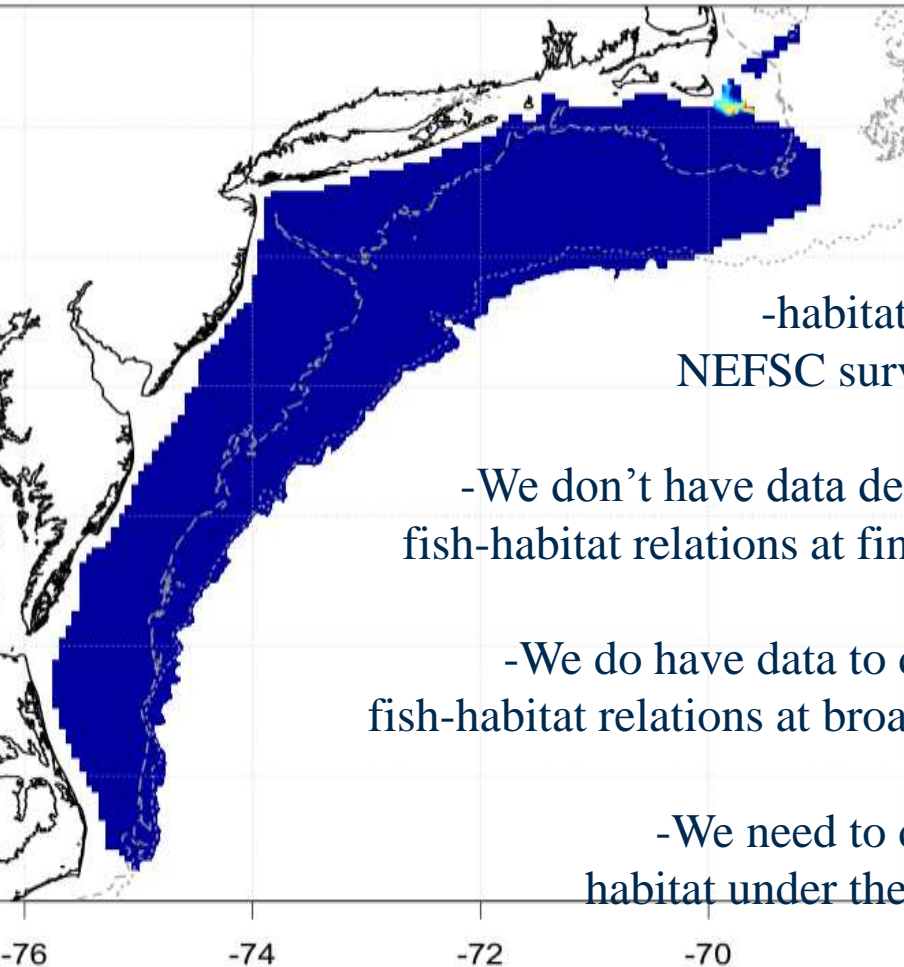
Ocean Information for a Changing World



Test of prototype operational habitat model (v. 2.0)

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Predicted habitat: 2010-09-01 12:00:00



Butterfish “now cast”

Catch data
&
analysis

F/V Karen Elizabeth

